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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/532,046	04/21/2005	Shoichiro Shimoike	Q87632	5814
65565	7590	12/07/2007		
SUGHRUE-265550			EXAMINER	
2100 PENNSYLVANIA AVE. NW			PHAN, THIEM D	
WASHINGTON, DC 20037-3213				
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			12/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/532,046	SHIMOIKE, SHOICHIRO	
	<b>Examiner</b>	<b>Art Unit</b>	
	Tim Phan	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 October 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,4/1 is/are rejected.
- 7) ☒ Claim(s) 2,3,4/2,4/3 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>4/21/05</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Election/Restrictions*

1. Applicant's election without traverse of Group I, Claims 1-4, filed on 10/19/07, is acknowledged.

The Restriction mailed on 09/20/07 has been carefully reviewed and is held to be proper. Moreover applicant did not distinctly and specifically point out any error in the Restriction Requirement. Accordingly, Claims 5-7 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim.

The Restriction filed on 09/20/07 is hereby **made Final**.

Applicant is required to cancel these nonelected claims (5-7) or take other appropriate action.

An Office Action on the merits of Claims 1-4 now follows.

### *Specification*

2. The disclosure is objected to because of the following informalities:

- On page 1, before "BACKGROUND OF THE INVENTION", insert:

#### "CROSS-REFERENCE TO RELATED APPLICATION

This application is the U.S. National Phase under 35 U.S.C. 371 of International Application PCT/JP03/13143, filed 10/14/03, which claims priority to Japanese Patent Application No. 2002-305941, filed 10/21/02."

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 4/1 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art, hereinafter AAPA, in view of Suzuki Yasuo (JP 2001-230567).

**With regard to claim 1**, AAPA teaches a process of arranging the multishaft servo-amplifier modules of identical shape (Fig. 10, 93) and an identical function to each other and has semiconductor power elements (Page 3, lines 23-26), which reads on applicants' claimed invention, comprising:

- preparing a multishaft interface substrate, that constitutes a multishaft servo-amplifier function unit for a host controller (Page 4, line 9), as a base plate (Fig. 10, 91) on which the plurality of multishaft servo-amplifier modules (Fig. 10, 93) are mounted;
- mounting the multishaft servo-amplifier modules on surfaces of the multishaft interface substrate in parallel (Fig. 10, 93) therewith; except for mounting the multishaft servo-amplifier modules on the both surfaces of the multishaft interface substrate.

Suzuki Yasuo teaches an electronic circuit case where the electronic circuits (Fig. 2, 5) are arranged on both surfaces of the printed circuit board (Fig. 2, 4) in order to improve the packaging density of the electronic circuitry (Paragraph 17, last line).

It would be obvious to one of ordinary skill in the art at the time invention was made to

provide AAPA with the two sides structural arrangement of electronic components, as taught by Suzuki Yasuo and not its original devices, in order to improve the packaging density of the multishaft servo-amplifier modules on both surfaces of the multishaft interface substrate.

**With regard to claim 4/1**, AAPA teaches a process of arranging the multishaft servo-amplifier modules of identical shape (Fig. 10, 93) and identical function to each other and having semiconductor power elements (Page 3, lines 23-26) on a base plate (Fig. 10, 91) of a movable part of a machine (Paragraph 2), which reads on applicants' claimed invention; except for mounting the multishaft servo-amplifier modules on their most flat structural modules to decrease the thickness of the system.

Suzuki Yasuo teaches an electronic circuit case where the electronic circuits (Fig. 2, 5) are arranged at their utmost flat structural devices on both surfaces of the printed circuit board (Fig. 2, 4) in order to improve the packaging density of the electronic circuitry (Paragraph 17, last line).

It would be obvious to one of ordinary skill in the art at the time invention was made to provide AAPA with the two sides structural arrangement of electronic components at their utmost flat structural devices, as taught by Suzuki Yasuo and not its original devices, in order to improve the packaging density of the multishaft servo-amplifier modules on both surfaces of the multishaft interface substrate without increasing the thickness of the system.

***Allowable Subject Matter***

5. Claims 2, 3, 4/2 and 4/3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the

base claim and any intervening claims.

*Conclusion*

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M & Tu, 6AM - 2PM, and W & Th, 9AM – 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tim Phan  
Examiner  
Art Unit 3729

Tp  
December 5, 2007